

**Amendments to the Specification:**

Please substitute the following paragraphs of the specification as originally filed for the substitute paragraphs filed herewith. Amendments are shown with additions underlined and deletions in ~~strikethrough~~ text. Please note that certain statements in the Background section were deleted because these statements were recognized after filing as being either confusing or potentially inaccurate. No new matter has been added by these amendments.

*Please replace the paragraph starting on page 2, line 18 with the following paragraph:*

Some low cost haptic devices exist, such as the tactile gamepads for console game systems and personal computers, e.g. the ~~Sony DualShock or Nintendo Rumble Pack~~. These devices generate tactile sensations by including a motor having a rotating shaft and an inertial mass connected to the shaft at an off-center point of the mass. The inertial mass is rotated around the motor shaft with respect to the interface device at various speeds. The problem with such a methodology is slow response time because the spinning mass must accelerate and decelerate over time to achieve the rotational velocity corresponding to a desired frequency output. Also, this implementation applies forces in a continually changing direction confined to a plane of rotation of the mass, providing a “wobble” sensation. This can be particularly disconcerting to the user at slow frequencies.

*Please replace the paragraph starting on page 9, line 13 with the following paragraph:*

Flexure portion 72 includes a rotating member 78, a flexure joint 80, and a grounded member 82. Rotating member 78 is rigidly coupled to the rotating shaft 70 of the actuator 66. Flexure joint 80 couples the rotating member 78 to the grounded member 82. Furthermore, the portion 72 preferably includes a clockwise stop 84 coupled to the ground member 82, a stop 86 coupled to the rotating member ~~86~~ 78 that engages the stop 84, a counterclockwise stop 88 coupled to the grounded member 82, and a stop 90 coupled to the rotating member 78 that engages the stop 88. The grounded member 82 is rigidly attached to a ground surface (e.g. the device housing) by a screw 76 or other equivalent fastener.

*Please replace the paragraph starting on page 9, line 29 with the following paragraph:*

The actuator assembly 50 operates as follows. The actuator 66 rotates the shaft 70 harmonically (in two directions) according to a control signal, such as a sine wave, square wave, etc. The flexure portions 72 and 74 are shown in Fig. 2a in their origin position, when no force from the actuator is applied. When the shaft 70 is rotated clockwise about an axis A (viewing the shaft from the portion 72 side) by the actuator, the rotating member 78 also rotates in that direction. The flex joint 80 is made thin in the z-dimension to allow this rotation. Furthermore, the flex joint 80 allows the actuator 66, shaft 70 and rotating member 80 78 to linearly move in the direction approximately toward the stop 84. To channel the motion of the flexure into the desired x-axis motion, the flexure portion 74 at the other end of the actuator includes flex joint 104, which is made thin along the y-axis to allow a pivoting motion of the actuator along the x-axis. In addition, since the motion of the actuator 66 is partially along the z-axis as well, the flex joint 108 is provided having a thin section along the z-axis to allow this z-axis motion. In other embodiments, the flex joint 108 can be omitted if there is enough z-axis flex in the system to allow the small amount of z-axis motion of the actuator.